



*North York Moors National Park Authority
Maritime cliffs and slopes
Habitat action plan*

North York Moors National Park
Maritime Cliffs and Slopes Habitat Action Plan
2008–2012

Maritime cliffs and slopes

Our objectives for maritime cliffs and slopes are:

1. To establish the 'one-field-back principle' along the coastline: buffer zones the width of a field along the cliff tops, to enable a natural wildlife zone to assert itself and replenish habitats lost to erosion.
2. To prevent agricultural run-off causing pollution or excessive erosion.
3. To reintroduce coastal grazing, where topography allows and where it will be beneficial to plant communities.

Introduction

Maritime cliffs and slopes form through land slippage and coastal erosion. Cliff profiles vary with the nature of the rocks forming them and the geomorphology of the adjacent land. Cliffs tend to be defined as either 'hard' or 'soft', although many intermediate grades occur. The vegetation of these habitats varies according to geology, erosion, the gradient of the slope and the extent of sea-spray. Typical plant species include red fescue, thrift and sea plantain.

Soft cliff habitats are often particularly diverse, with large tracts of species-rich grasslands alongside wet flushes, pools, marsh, bog and wykes (wooded valleys which cut through the cliff slope). Scattered scrub is usually the only woody vegetation that grows on the coastal slope itself. The scrub is extremely important for migrant birds in winter and invertebrates in summer, but left unchecked it can choke valuable open-ground communities. Freshly eroded areas of unstable slope are of vital importance to early colonisers including rare ground beetles, weevils, and shore bugs.

Hard cliff is primarily of geological interest, much of it being designated as SSSI for this reason. The thin strip of clay on the cliff top can harbour a diverse grassland and nesting burrows. The rock itself may have interesting lichen flora. The main ecological interest of hard cliffs is in the breeding habitat they provide for vast seabird colonies.

National status

Approximately 4000km of UK coastline has been classified as cliff. Hard cliffs are widely distributed around the more exposed coasts of the UK, mainly in the south-west and south-east of England, in north-west and south-west Wales, western and northern Scotland and the north coast of Northern Ireland. Soft cliffs are more restricted, being confined to eastern seaboard and central south coasts.

North York Moors National Park

Maritime Cliffs and Slopes Habitat Action Plan

2008–2012

Many of the breeding populations of seabirds on UK cliffs and slopes are at internationally important population levels. For example, 70% of the world's gannets breed in the UK.

In the last 10 years an estimated 90km of new 'protection works' to prevent coastal erosion has led to a loss of 36% of the remaining semi-natural soft cliff habitat in the UK.

Local status

The North York Moors National Park has approximately 28 miles of hard and soft sloping cliffs of glacial till and Jurassic rocks (shale and sandstone). Around a third of the coastline is owned by the National Trust. The whole of the National Park's coastline falls within a 36-mile stretch designated as the North Yorkshire and Cleveland Heritage Coast. Most of the cliffs in the Park are not vertical, and are lower than 50m. The coastline's Jurassic geology is nationally famous, but vulnerable, and as a result a Local Geodiversity Action Plan is being developed for these features.

Coastal slope habitats are relatively inaccessible and have so far largely escaped the intensive farming revolution. The natural cycle of erosion which supports their unique range of flora and fauna unfortunately threatens their long-term existence, as the eroding unimproved soils are being replaced by improved soils from cliff-top arable farms. In some areas the coastal slope is beginning to lose its distinctive species, to be replaced by competitive species such as docks, nettles and thistles. In addition, much of the botanically diverse open slope along the coast has been lost to excessive scrub invasion since grazing was stopped. On the other hand, coastal gorse has been identified in the North York Moors landscape appraisal as being particularly important to coastal birdlife.

Local examples

1. Robin Hood's Bay: Maw Wyke to Beast Cliff SAC. Beast Cliff is an extensive area of coastal slope vegetation including scrub, tall herbs and some very species-rich grassland patches. The habitat is home to many rare plants such as Dyer's Greenweed and is also of vital importance to rare invertebrate communities.

2. Port Mulgrave is the most accessible of the coastal slope habitats. It has excessive scrub, thistle and bracken, but is gradually being restored to species-rich grassland.

North York Moors National Park

Maritime Cliffs and Slopes Habitat Action Plan

2008–2012

Legal status

The main coastal slope habitats within the National Park are represented within the SSSI designations. The cliff vegetation from Robin Hood's Bay to Beast Cliff is an internationally important SAC.

Links to other action plans

Habitat Action Plans:	Species Action Plans:
Species rich grassland*#	Farmland birds*#
Woodland*#	Reptiles#
Moorland	Orchids*#
Rivers and streams*#	
Farmland*#	
Rocky shore*#	
* = Local Species Action Plan	
# = UK Species Action Plan(s)	

Threats

- Erosion is a highly significant process for soft cliffs, renewing and recycling biological succession. However, where land is cultivated up to the cliff edge, this erosion can result in the destruction of important cliff-top habitat.
- Run-off and drainage from cliff-top fields causes localised erosion, and overuse of fertilisers can lead to vigorous weed species encroaching at the expense of maritime species. Herbicide spray-drift adversely affects natural cliff-top vegetation.
- Excessive erosion and disturbance to ground nesting birds may also be caused by trampling by the public and by livestock.
- Coastal defences have been built on many soft cliff coasts to slow down erosion and protect assets behind the lines of defence. By stabilising the cliffs, this changes the dynamic diverse cliff-top habitat. Cliff faces have also been sown with aggressive grasses as a stabilisation measure, which further damages habitats.
- Cessation of grazing on coastal slopes has led to areas of species-rich grassland being choked by scrub.

Requirements

- Sensitive grazing regimes.
- Scrub management.
- One-field-wide buffer zones along the cliff tops, to enable a natural wildlife zone to assert itself and replenish habitats lost to erosion.

North York Moors National Park

Maritime Cliffs and Slopes Habitat Action Plan

2008–2012

Local action

A Heritage Coast Project Officer is by the National Park Authority on behalf of the Heritage Coast partnership to work on specific projects from the Heritage Coast management plan. Work on cliffs and slopes includes:

- Assisting landowners with agri-environment schemes to promote an increase in cliff-top semi-natural habitats, by compensating farmers for a one-field-back buffer zone.
- Running a small-scale grants scheme to assist with practical conservation work.
- Monitoring coastline habitats and digitising data already collected from volunteer and professional survey work
- Raising awareness of the importance of coastal habitats through interpretation, walks, talks, work with schools, leaflets

Local botanists have identified endangered habitats and plants on coastal slopes for translocation projects.

Coastal heath areas have been experimentally extended at several sites through seeding, in order to develop areas of this important habitat for reptiles, invertebrates and birds.

Opportunities

- Agri-environment schemes such as Environmental Stewardship are a priority for cliff-top grasslands. These fields should be taken out of intensive agricultural production and conservation management plans written and implemented.
- The National Park, the National Trust and the Heritage Coast could work in partnership to develop a North York Moors Coastal Grazing Animals Project.

What can you do to help?

- Report notable species to the National Park Authority using the online recording form on the National Park's website:
www.moors.uk.net/recording
- Assist the North York Moors National Park Volunteers with coastal management. Phone the Volunteers Service on 01439 770 657 for details
- Keep to established footpaths well back from the cliff edge to avoid trampling this sensitive habitat.
- If you own land adjacent to the cliff edge join an agri-environment scheme or develop a wide cliff-top buffer zone, or to take the field(s) out of intensive use.
- If you own livestock appropriate for cliff-top and coastal-slope grazing, please get in touch with the North York Moors National Park Authority ecologists on 01439 770 657.